DOCUMENT RESUME

ED 253 790 CG 017 993

AUTHOR Barkley, William M.; Percy, Richard L.
TITLE Accreditation Status, Credit Hours and Enrollments in Master's Degree Programs in Counseling, 1975-1982.
PUB DATE Mar 84
NOTE 50p.; Paper presented at the Annual Convention of the American Association for Counseling and Development (Houston, TX, March 18-21, 1984). Best copy available.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Accreditation (Institutions); *Counselor Training; *Credit Courses; *Enrollment Influences; Enrollment Trends; Higher Education; Masters Degrees; Required Courses; Trend Analysis

ABSTRACT

Enrollments in counselor education programs have been declining in recent years. In order to examine the effect on declining enrollments of the recent trends toward professionalism for counselors, surveys were mailed to 100 randomly selected counselor education programs and to 10 additional programs randomly selected from programs accredited by the Council for the Accreditation of Counseling and Related Programs (CACREP); usable data were obtained from 92 programs. The number of applications to Master's degree programs by Accreditation Status (Status), whether or not programs had increased their credit hour requirements since 1975 (Change), and years (1975-1982) were examined. Results showed that programs which were either accredited or had applied for accreditation received significantly more applications, and programs that increased their credit hours had significantly fewer applications than those that did not. Partial correlations for 1976-1982 using the number of applications in 1975 and the number of full time faculty equivalents (FTE's) as control variables resulted in no significant correlations for Status or Change with applications even though all zero order correlations had been significant. Trends over years were tested for each level of Status. The results for Accredited/Applied programs approached significance (p=.06). The actual number of credit hours required generated significant zero order correlations with applications, but when FTE's and applications in 1975 were partialed out there were no significant relationships. No relationships were found for new enrollments. (The study questionnaire is included.) (Author/BH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED253790

BEST COPY AVAILABLE

ACCREDITATION STATUS, CREDIT HOURS AND ENROLLMENTS IN MASTER'S DEGREE PROGRAMS IN COUNSELING, 1975-1982

William M. Barkley & Richard L. Percy

Peabody College of Vanderbilt University

Department of Human Development Counseling

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

X Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Richard L. Percy

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CG017993

RUNNING HEAD: ENROLLMENTS

Abstract

Surveys were mailed to 100 randomly selected counselor education programs and to 10 additional programs randomly selected from the list of programs accredited by the Council for the Accreditation of Counseling and Related Programs (CACREP). After eliminating 10 invalid respondents, at least partial usable data were obtained from 92 programs. A Repeated Measures Analysis of Variance on the number of applications to Master's degree programs by Accreditation Status (Status), whether or not programs had increased their credit hour requirements since 1975 (Change) and years (1975-1982) was conducted. Programs which were either accredited or had applied for accreditation received significantly more applications than programs with no intention of applying. Programs that increased their credit hours had significantly fewer applications than those that did not change their credit hour requirements. However, partial correlations for 1976-1982 using the number of applications in 1975 and the number of full time faculty equivalents (FTE's) listed in Hollis and Wantz (1980) as control variables resulted in no significant correlations for Status or Change with applications even though all zero order correlations had been significant. Technically, no significant decline in applications over time were found when using Greenhouse-Geisser probability values. However, trends over years were tested for each level of Status. The results for

Accredited/Applied programs approached significance (p = .06). The actual number of credit hours required generated significant zero order correlations with applications, but when FTE's and applications in 1975 were partialed out there were no signficant relationships. No relationships were found for new enrollments.

Trends in graduate school enrollments indicate that while universities are experiencing some increases in enrollments in the social sciences, physical sciences and engineering, we are in a period of decline in enrollments in our graduate schools of education. A recent study (Graduate Record Examination Board, 1983) indicates that overall enrollments in graduate education declined in 1982 by 5.1%. These declining enrollments are not attributable to any one specific factor but do reflect an economy in recession, changing social values and a depressed labor market in education.

Counselor education programs are typically housed in graduate schools of education and thus presumably are subject to the same societal and economic conditions which are causing enrollment decline in other related academic areas. In addition, there are other trends in evidence within the counseling profession which might also be expected to influence graduate enrollments (Sweeney, 1979). Program accreditation represents, perhaps, the most significant factor as the profession strives to implement standards (Stahl & Haven, 1978). This trend will not only address many of the deficit areas in counselor training first identified by Jones (1975) but also those identified as the profession continues to examine professional identity issues (Remer, Omvig, & Watson, 1978; Pate, 1980) and credentialing (Forster, 1978).

BEST COPY AVAILABLE

The question which must be addressed is whether the current trends in professionalism for counselors are countering the overall trends toward delining enrollments in colleges of education or whether these various movements are in fact exascerbating an already precarious situation. Unfortunately, the process of program accreditation is so recent that it is too early to assess it full impact on individual programs. There are preliminary questions, however, which do arise out of recent studies (Hollis & Wantz, 1980; Wantz, Scherman, & Hollis, 1982). There is a trend toward expanding the number of courses, number of degrees, and areas of program emphasis in counselor education. In fact, courses are being added at an average of about one per year per administrative unit. As counselor training programs become more and more influenced by external factors such as accreditation standards, these trends can be expected to continue.

Questions

There are three sets of primary questions with respect to Master's degree programs in counseling to which answers were sought in this study:

1. Is there a significant ($p \leq .05$) relationship between the number of credit hours required and the number of aplications to the program, and the number of actual new enrollments?

2. Do the number of applicants and/or the number of new enrollments differ significantly ($p \leq .05$) across CACREP accreditation status (Status), whether or not programs increased their credit hour requirements since 1975 (Change) and Years (1975-1982)?
3. How do changes in new enrollment patterns in counselor education programs compare to overall patterns for graduate schools of education?

Methods

Subjects

One hundred universities granting graduate degrees in counseling were selected at random from the Hollis and Wantz (1980) report on counselor preparation programs. A second random sample of 10 programs with at least provisional accreditation status from the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) were selected from the total number of accredited programs prior to March, 1983 ($N = 26$).

Procedures

A questionnaire (see Appendix) was sent to each of the 110 programs selected for this study. From the first sample of 100 institutions 37 responded to the first mailing with at least partial data. Twenty-eight responded to a second mailing and 3 responded to a third. In addition, 26 non-respondents were contacted by telephone to generate a total response rate of

94%. From the second sample of 10 accredited programs 7 responded to the first mailing and 1 responded to the third mailing. Attempts were made to contact by phone every program that did not respond to the third mailing for both samples. If an appropriate individual could not be contacted after three attempts by phone, efforts to obtain data from that program ceased.

In order to obtain some indication of the accuracy of the data reported on the questionnaires, the number of credit hours required in the Master's degree program as reported on the questionnaire was compared to the number reported in Hollis and Wantz (1980). Six programs from the first sample and 1 from the second were found to have marked discrepancies (more that 3 semester hours) that could not be explained by a recent change ir credit hours or by conversions from quarter hours to semester hour equivalents (1 quarter hour = 2/3 semester hours). These 7 programs were dropped from the study. None of these programs returned complete data and five of them had to be contacted by phone because they did not return their questionnaires. In addition, it was found that 2 programs from the first sample and 1 from the second sample offered only doctoral level degrees. These 3 programs were also dropped from the study. At least partial usable data were available from 92 respondents.

Results

The Random Sample

Descriptive data. Eighty-five programs returned usable data on accreditation status (Status). Thirty-nine indicated that they had no intention of applying for accreditation from CACREP (45.9% of the valid respondents), 35 (41.2%) intend to apply, 3 (3.5%) had already applied but had not yet been informed of their status, and 8 (9.4%) were already accredited. Seventy-six respondents indicated whether or not they had changed their credit hour requirements since 1975. Thirty-four (44.7%) indicated no change in credit hours, 39 (51.3%) reported increasing their requirements and 3 (3.9%) said they decreased their credit hour requirements since 1975. Only 19 out of the 42 that changed their requirements reported the year in which said changes were made (1 in 1976, 4 in 1978, 2 in 1979, 4 in 1980, 3 in 1981, 4 in 1982, and 1 for 1983).

Eighty programs provided data on the number of credit hours currently required for Master's degrees and generated a mean and standard deviation of 39.2 and 6.79, respectively. Twenty-two (27.5%) required 30-35 hours, 29 (36.2%) required 36-41 hours, 19 (23.8%) required 42-47 hours, 7 (8.8%) required 48-53 hours and 3 (3.8%) required 54-60 hours. Seventy-two programs generated data on the number of credit hours required prior to any changes (includes programs that did not change their credit hour

BEST COPY AVAILABLE

requirements since 1975) which resulted in a mean and standard deviation of 36.36 and 7.84 respectively. In addition, the number of full time faculty equivalents (FTE's) were available from Hollis and Wantz (1980) for 68 of the respondents, producing a mean of 5.19 and a standard deviation of 3.51.

Insert Tables 1

From Tables 1 it can be seen that even though the overall response rate is excellent, a relatively low percentage of respondents returned complete data for the number of applications to entry level programs, the number of applicants accepted for admission and the number of accepted applicants who actually enrolled in the programs. The percentages of valid respondents providing data on applications ranged from 27.8% for 1975 to 45.7% for 1982. Data on acceptances were provided from 27.8% for 1975 to 46.5% for 1982, and data on new enrollments were provided for 34.9% for 1975 to 52.3% for 1982. From Table 1 it can be seen that there is a steady increase in response rates from 1975 to 1982. (It should be noted that data on these variables obtained from programs by telephone were limited essentially to the latter years, primarily 1982).

Correlations. Pearson product-moment correlation coefficients were calculated for the number of applicants and new enrollments in 1975 through 1982 with the number of current credit hours, prior credit hours and FTE's reported. Current credit hours were

BEST COPY AVAILABLE

found to be significantly related ($p \leq .05$) to applications in 7 out of 8 years. Significant correlations ranged from $r = .39$ in 1978 ($df = 27$, $p = .02$) to $r = .49$ in 1976 ($df = 47$, $p = .01$). The only year in which a significant correlation was not obtained was in 1977 ($r = .32$, $df = 25$, $p = .06$). Current credit hours required were significantly correlated with enrollment data only for 1982 ($r = .28$, $df = 43$, $p = .03$). Previous credit hours were significantly correlated with application data for all eight years. Correlations ranged from $r = .59$ ($df = 23$, $p = .00$ in 1977) to $r = .71$ ($df = 35$, $p = .00$ in 1982). Previous credit hours were significantly correlated with enrollments for three years ($r = .28$, $df = 34$, $p = .05$ for 1980, $r = .27$, $df = 35$, $p = .05$ for 1981 and $r = .42$, $df = 40$, $p = .00$ for 1982).

The number of FTE's reported in Hollis and Wantz (1980) generated signficant correlations with applications for all eight years and for 7 of the 8 years of enrollment data. The range of correlations obtained with applications was $r = .57$ in 1980 ($df = 25$, $p = .00$) to $r = .76$ in 1975 ($df = 18$, $p = .00$). The lowest correlation with enrollment data was found for 1976 ($r = .25$, $df = 25$, $p = .08$) and the highest was obtained for 1982 ($r = .57$, $df = 38$, $p = .00$).

Correlations were also computed for current hours, previous hours and FTE's with each other. Current hours and previous hours generated a coefficient of $r = .46$ ($df = 70$, $p = .00$). The correlation between current hours and FTE's was found to be

r = .45 (df = 61, p = .00) and the correlation between previous hours and FTE's was r = .71 (df = 55, p = .00).

The Combined Samples.

Since the number of anticipated respondents which would have already been accredited by CACREP at the time of the survey was so small, the second random sample (accredited programs) was included in order to increase the n's for subsequent analyses. In addition, after reviewing the data it was observed that only 3 respondents fell into the applied for accreditation category and only two of them returned complete data on applications or new enrollments. Comparison of the means of the applied and the accredited respondents at each time period did not yield marked discrepancies. Mann-Whitney U tests consistently generated statistics greater than the critical values (e.g., $U_{.944}$ = 1 for n_1 = 2 and n_2 = 7) indicating failure to reject the null hypotheses. In addition, variances did not appear to differ markedly. Therefore, the two groups were combined for subsequent analyses.

Previous hours, current hours and FTE's. Tables 2, 3 and 4 present summary descriptive statistics for the number of previous credit hours required, current credit hours and FTE's respectively by Status and Change. Examination of the standard deviations in Table 2 led to computation of the F_{max} statistic to check for marked heterogeneity of variance. The F_{max} (= SS_{ij} largests/SS_{ij} smallest) was found to be 63.45. This far exceeds

the critical value even if the smallest cell size was to be used in figuring the degrees of freedom ($F_{.95}$ (6,6) = 4.28). Log transformations of the data still did not generate variances homogeneous enough for analysis. Therefore, one way analyses of variances were conducted across accreditation status and across change versus no change in credit hours rather than two-way analyses. However, for the former the Bartlett-Box F test of homogeneity of variance on the raw scores as well as on log transformations (F = 16.70, p = .00 and F = 5.39, p = .00, respectively) resulted in rejection of the assumption of homogeneity. Thus, for previous hours across accreditation status a Kruskall-Wallace test was conducted. A corrected Chi-Square of 4.129 was obtained which did not achieve the .05 level of significance (p = .13). The oneway analysis of variance across change versus no change in credit hours (conducted on log transformations of the raw data) barely failed to generate a significant statistic (F = 3.55, p = .06).

Insert Tables 2, 3 and 4

Two-way analyses of variance were conducted for current credit hours and for FTE's by Status and Change. A significant difference in number of hours required was found only across accreditation status (F = 5.01, df = (2,74), p = .01).

A Scheffe post-hoc analysis indicated that the accredited/applied

programs had a significantly higher mean than those programs with no intention of applying for accreditation. Both main effects were found to be significant for FTE's (F = 12.53, df = (1,58), p= .00 for Change and F = 8.91, df = (2,58), p = .00 for Status). A Scheffe analysis indicated that accredited/applied programs had a higher mean FTE than programs with no intention to apply. Reference to Table 4 demonstrates that programs that did not change their credit hour requirements had a higher mean FTE than those that did.

Applications and New Enrollments

Since many programs had to be contacted by telephone (n = 26) and since most of these programs provided data on applications or enrollments for only the last year or two, separate 2 x 3 (Change x Status) analyses of variance were conducted on these dependent variables for 1982 data. Significant F - ratios were obtained for the interaction effect of Change by Status for applications (F = 3.36, df = (2,36), p = .05). No significant differences were found for new enrollments. An analysis of simple main effects with respect to applications found that the only significant simple effect was across status for programs that did not increase their credit hour requirements (F = 4.18, df = (2,16), p = .04). A Scheffe analysis found that accredited/applied programs had more applicants than programs with no intention of applying.

The consistent correlations involving FTE's led the investigators to explore the possibility of an analysis of covariance with FTE's as the covariate. However, significant correlations were also obtained for FTE's with change ($\underline{r}$ = -.27, $\underline{df}$ = 36, $\underline{p}$ = .05) and with Status (Tau B = .31, $\underline{df}$ = 36, $\underline{p}$ = .01, ETA^2 = .15) for programs returning 1982 application data. After recoding Status to make it a dichotomy (accredited/applied versus not accredited/not applied), correlations were computed for all possible subjects. The correlations between FTE's and Status and FTE's and Change were both significant ($\underline{r}$ = -.25, $\underline{df}$ = 65, $\underline{p}$ = .02 and $\underline{r}$ = .33, $\underline{df}$ = 65, $\underline{p}$ = .00, respectively). The correlation between Status and Change was not significant ($\underline{r}$ = .02, $\underline{df}$ = 65, $\underline{p}$ = .45) and the partial correlation between Status and Change with FTE's partialed out also generated a non-significant coefficient ($\underline{r}_p$ = .07, $\underline{df}$ = 64, $\underline{p}$ = .29).

According to Aiken (1981), it is inappropriate to employ analysis of covariance procedures when naturally occuring groups are used as independent variables and when significant relationships exist between the independent variables and the covariate. Partial correlation analyses are more appropriate. Therefore, partial correlations were obtained between recoded Status and applications in 1982 ($\underline{r}_p$ = .24, $\underline{df}$ = 35, $\underline{p}$ = .08) and between Change and applications in 1982 ($\underline{r}_p$ = -.12, $\underline{df}$ = 35, $\underline{p}$ =.24). These correlations indicate that adding information about accreditation status to a model already including FTE's explains

5.8% of the variance in applications that is not already explained by FTE's. Similarly, information about changes in credit hours reduces unexplained variance by only 1.4%. These percentages are not significantly different from zero. Comparable zero order correlations were computed (r = .39, df = 36, p = .00 for Status and r = .26, df = 36, p = .06 for Change). It can be seen from the above data that the significant zero order relationship for Status becomes barely non-significant when controlling for FTE's. Change approaches significance only when not controlling for FTE's.

Programs Returning Complete Application or New Enrollment Data Representativeness. The data employed in the following analyses were obtained from programs returning complete data on the relevant dependent variable for all eight years (1975-1982). In order to generate some indication of how representative these subsets of respondents were of the total set of respondents from the random sample, Z-tests were conducted between the means of the subsets and the means of the respondents from the random sample. In these tests, the means and standard deviations of the random sample were treated as population parameters. Thus, Z-tests rather than t-tests were employed. In this situation the Z-test is more likely to be subject to rejecting the hypotheses of no difference between means when, in reality, no difference exists, than would be the t-test. Therefore, more confidence can

be placed in conclusions not to reject the hypotheses of no difference between means. Only FTE's (Z =2.55) and the number of current credit hours (Z =2.71) for programs returning complete application data produced significant statistics ($Z_{.95} = \phi$ 1.96). It should also be noted that none of the dependent variables came close to achieving significance.

Ninety-five percent confidence boundaries were computed for the proportions of programs in the random sample in each level of Status and Change. Both subsets generated proportions outside the 95% confidence limits only for the number of programs reporting no intention of applying for accreditation (24.0% < 24.4% to 67.4%, 23.3% < 26.4% to 65.4%, respectively).

None of the dependent variables in the subsets of programs used in the following analyses were found to differ significantly from the random sample. However, the subsets are under represented by programs with no intention of applying for accreditation. In addition, the applications subset has higher mean FTE's and credit hour requirements than the random sample.

Applications, and New Enrollments 1975-1982. Summary descriptive statistics for applications are presented in Table 5.

Insert Table 5

A 2x3x8 (Change x Status x Years) analysis of variance with repeated measures over years generated significant main effects for both Change and Status (see Table 6).

Insert Table 6

It should be noted that when using the usual probability values in evaluating tests involving the repeated factor, a significant Status x Years interaction would have been inferred. However, marked heterogeneity of variance resulted in using the Greenhouse-Geisser values. When these values were used neither a significant interaction nor a significant main effect of Years was obtained.

Even though the interaction was not significant, trend analyses from 1975-1982 were conducted separately for accredited/applied programs, those which intend to apply and those with no intention of applying for accreditation. Neither significant linear nor non-linear trends were obtained for any group, but the linear trend for the accredited/applied programs came very close to being significant ($F_{lin} = 4.76$, $df = 1,7$, $p = .07$).

Summary descriptive statistics for new enrollments are presented in Table 7. It can be seen from Table 8 that a repeated measures analysis of variance did not generate any significant effects.

Insert Tables 7 and 8

Partial correlations were computed between Status (dichotomized) and Change with applications and new enrollments

with FTE's and the appropriate dependent variable data from 1975 as control variables. Tables 9 and 10 present the obtained correlations for application and new enrollments, respectively.

Insert Tables 9 and 10

It can be seen from Table 9 that when the number of applications in 1975 is used as a control variable, the significant relationships with Status based on zero-order correlations are eliminated. Similar results are obtained for relationships with Change when either FTE's or applications in 1975 are used as control variables. From Table 10 it can be seen that there is a pattern of non-significant zero order correlations between new enrollment and Change. When FTE's was used as a control variable significant correlations were obtained only for 1977 and 1978. The lack of significant relationships based on zero order correlations with Status remained essentially unchanged when control variables were used.

Partial correlations were also computed for the relationships between the actual number of current credit hours required and applications and new enrollments. FTE's and 1975 data on the respective dependent variables were used as control variables. All of the zero order correlations between credit hours and applications were positive and significant.

Coefficients ranged from r = .40 (df = 19, p = .04 in 1975) to r = .50 (df = 19, p = .01 in 1982). However, when either 1975 data and/or FTE's were used as control variables, all significant relationships were eliminated. Coefficients ranged from $r_{p(both)}$ = .17 (df = 17, p = .24 for 1977) to $r_{p(both)}$ = $r_{p(both)}$ = .29, (df = 17, p = .12 for 1981). A somewhat similar pattern was found for the relationships between credit hours and new enrollments. Four of the zero order correlations were not quite significant. Non-significant correlations ranged from r = .27 (df = 24, p = .09 in 1981) to r = .31 (df = 24, p = .06 in 1976 and 1980). However, all relationships became non-significant when either or both control variables were employed. Partial coefficients ranged from $r_{p(both)}$ = .06 (df = .38, p = .38 for 1976) to $r_{p(both)}$ = .18 (df = 22, p = .20 for 1982).

Comparisons with National Trends

Data were obtained on the annual percentage decline in new enrollments for graduate schools of education across the country from the Graduate Record Examination Board (1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983). Table 11 presents data extracted from these reports and data calculated from the respondents in this study returning complete enrollment data.

Insert Table 11

It can be seen from Table 11 that that there is a consistent drop in new enrollments for graduate schools of education from 1975 to 1982. However, there is an erratic pattern for counselor

education programs in this study. In addition, the overall percentage decline from 1975 to 1982 using 1975 as the base was calculated for both sets of data. Entry level counselor education programs show an 8.7% decline in new enrollments since 1975, while graduate schools of education show an 18.7% decline over the same time period. (It should be noted, however, that the figure for graduate schools of education is not necessarily based on the exact same set of respondents for both 1975 and 1982.)

Discussion

Limitations

Various degrees of confidence are associated with the generalizability of the findings from this study. Inferences from data obtained from the first random sample of counselor education programs with respect to previous credit hours, current credit hours and FTE's (in 1980) have reasonably good generalizability. In addition, the data from the same sample regarding the percentages of programs in different CACREP accreditation categories and whether or not they changed their credit hour requirements since 1975 are also fairly well generalizable.

There is considerably less confidence with respect to generalizations beyond the participants in this study based on application and new enrollment data. The n's and the response rates are simply too low.

Another limitation of the study was the failure to ask respondents to include the actual number of FTE's for each year. The FTE's taken from Hollis and Wantz (1980) are interpretable here only as an index of the size of the institutional commitment to the counseling program.

Conclusions

1. It appears that observed zero order relationships between applications and credit hours are artifacts arising out of the intercorrelations involving FTE's and the number of applications in 1975. Observed zero order correlations between new enrollments and credit hours are also most likely artifacts due to significant relationships involving FTE's and new enrollments in 1975.

2. For programs returning complete application data significant main effects were found for both Status and Change. Accredited/applied programs had more applicants than programs with no intention of applying. Programs that did not increase their credit hour requirements had more applicants than programs that did. However, the partial correlation analyses using FTE's and the number of applications in 1975 as control variables cast doubt on the validity of the observed main effects. When all available 1982 data were used a significant Status by Change interaction led to the conclusion that accredited/applied programs had more applications than programs with no intention of applying only for programs that did not increase their credit hours. However, again, when FTE's were used as a control variable significant relationships with Status based on zero

order correlations were eliminated. Overall it appears that there is either no relationship between Status or Change and applications or there is a very weak one for Status in which accredited/applied programs had more applications than programs with no intention to apply. No significant effects were obtained for applications over years. However, examination of the means and the fact that the effect of years and an interaction effect involving years almost reached significant levels leads the authors to stress the point that failure to obtain a rejection of the null hypothesis does not necessarily mean the same as accepting the hypothesis of no relationship.

No significant effects from the repeated measures ANOVA were obtained for new enrollments with respect to Status, Change and Years. Significant partial correlations were found for 1977 an 1978, but the zero order correlations were not significant.

3. The declining enrollments in entry level counselor education programs since 1975 did not achieve significance and appear to be less dramatic than the trend for graduate schools of education in general. However, it should be noted that the trend analysis for accredited/applied programs almost reached significance.

Implications

It is too soon to investigate the long term impact of program accreditation and increases in credit hour requirements on enrollments in counselor education programs. However, there is no evidence from this study to support a hypothesis that

seeking accreditation and/or moderate increases in credit hour requirements results in declining enrollments. It appears that two other factors are more important - FTE's (an index of institutional support) and the enrollment related data for prior years (a possible index of reputation). The accreditation movement is likely to have major long term effects on the level of institutional support and the reputation of programs. As time progresses it is reasonable to assume that university administrators will have to deal with the question of whether or not to pursue accreditation. As affirmative response would most likely involve changes, not only in the curriculum and the number of credit hour required, but also in how resources are allocated within the university. Certainly some administrators will opt to eliminate programs or to eschew program accreditation efforts. The former may have the effect of increasing the applicant pool for competing programs. The latter will most likely result in declining reputations as more and more programs become accredited. In any event, it is hypothesized that if the same programs that responded in this study were surveyed again several years from now we would find a smaller number of programs in existence and increased variances for FTE's and for the dependent variables (especially applications). It is further hypothesized that at some later point, as more non-accredited programs are eliminated, the variance would begin to decrease and the relationship between FTE's and prior track record would diminish somewhat.

One of the effects of the accreditation process is likely to be the spurring of increases in the number of credit hours required for graduation from entry level programs. In fact, efforts are currently under way within the counseling profession to require a minimum of 60 semester hours for an entry level degree (Sweeney, 1983). It is an intuitively appealing assumption that increases in credit hours are likely to result in declining enrollments. On the other hand some data from this study actually show a positive zero order correlation between credit hours and each of the dependent variables. However, this relationship is very likely to be an artifact arising out of the relationship among FTE's, credit hours required with respect to applications and new enrollments. It should be noted that while no significant negative relations were obtained, programs that increased their requirements added only an average of 8.05 hours (s = 6.44) and that the mean number of current hours required for all programs providing data in the random sample was only $\bar{X}$ = 39.20.

Eighty percent of the random sample reported data on current credit hours and 63.8% of the respondents indicated requirements of less than 42 credit hours. Therefore, almost 2/3 of the respondents would have to increase their requirements by more than 18 hours in order to be eligible for accreditation if the proposed 60 hour minimum is adopted. It is not known what would be the impact on enrollments of such large increases in requirements.

Recommendation

It is apparent from reviewing the data presented in this study that failure to conduct the partial correlation analyses would have led to different conclusions. The complex web of interrelationships with which investigators in this field must deal cannot be understood by focusing on a too narrow set of relationships. Consistent patterns of correlations with other variables need to be investigated.

A second recommendation is that counselor education programs begin keeping data on applications, acceptances and enrollments. Many respondents returned very incomplete questionnaires and included comments to the effect that either the data were not available or were too time consuming to retrieve. It would be a relatively simple matter to record such data during each application-acceptance-enrollment cycle. These factors are too important to the life of most counselor education programs not to have accurate data readily available. Thus subsequent research on enrollment trends after the accreditation process has been operative long enough to assess its full impact would be facilitated. In addition, individual programs would have a better basis for making important decisions that are related ultimately to enrollments (e.g., allocation of resources).

Finally, it is suggested that counselor education programs struggling with the decision of whether or not to apply for accreditation but which are fearful of the possible effects of increasing credit hour requirements should take heart. At least

for the respondents in this study no negative relationships between credit hour requirements and/or modest increases in credit hours with the number of new enrollments were found. However, it would be going far beyond the data in this study to use these results as part of a rationale for moving to a 60 semester hour requirement for program accreditation.

References

ACES Standards for the preparation of counselors and other personnel services specialists. (1977). Personnel & Guidance Journal, 55, 596-601.

Aiken, L. (1981). Analysis of covariance or partial correlation: What is the question? Educational Research Quarterly, 6, (2), 13-16.

Forster, J. (1978). Counselor credentialing revisited. Personnel and Guidance Journal, 56, 593-598.

Graduate Record Examination Board. (1983). Report of the Council of Grduate Schools/Graduate Record Examination Board: 1982-83 survey of graduate enrollment. (mimeo) Princeton, NJ.

Hollis, J. E., & Wnatz, R. A. (1980). Counselor preparation 1980: Programs, personnel, trends (4th ed.). Muncie, IN: Accelerated Development.

Jones, L. K. (1975). United States counselor education programs: Program and enrollment characteristics. (mimeo). Report written for the Commission on Counselor Education Programs and Enrollment Characteristics, North Carolina State University.

Pate, R. H., Jr. (1980). The counselor in a psychological society. Personnel & Guidance Journal, 18, 84-89.

Remer, R., Omvig, C., & Watson, J. J. (1978). Counselor education curricula and professional identity. Counselor Education and Supervision, 18, 84-89.

Stahl, E., & Haven, R. I. (1978). The case for ACES program accreditation. Counselor Education & Supervision, 17, 180-187.

Sweeney, T. J. (1979). Trends that will influence counselor preparation in the 1980's. Counselor Education & Supervision, 18, 181-189.

Sweeney, T. J. (1983). Personal Communication, October 3, 1983.

Wantz, R. A., Scherman, A., & Hollis, J. W. (1982). Trends and implications for training. Counselor Education & Supervision, 21, 258-268.

George Peabody College for Teachers

VANDERBILT UNIVERSITY

NASHVILLE, TENNESSEE 37203

December 15, 1982

Telephone (615) 322-7311

Department of Human Development Counseling • Direct phone 322-8484

Dear Colleague:

Recent trends in the counseling profession, including program accreditation, have caused many counselor education departments to reevaluate their requirements for graduation from their entry level programs. This brief questionnaire reflects our interest in learning if these changes in requirements have any relationship to the number of applications and admission to the program.

Your willingness to participate will be greatly appreciated. If you would like to know the results, check the box at the bottom of the page and we will gladly send them to you.

Sincerely,

Richard L. Percy, Ed.D. William M. Barkley, Ph.D.

1. How many total credit hours (required plus elective courses) are presently required to complete your entry level counselor training program?

   _____ Credit Hours

2. Has the total credit hour requirement been changed in any way during the past eight (8) years?

   _____ Yes _____ No

   If yes, describe the change(s) and the year(s) in which the change(s) occurred.

   _____

   _____

3. Please indicate below the number of applications, students accepted, and actual students admitted into your entry level counselor training program over the past eight (8) years.

	1975	1976	1977	1978	1979	1980	1981	1982
Applications								
Acceptances								
Admissions								

4. CACREP (APGA) Accreditation Status:

   Full or Provisional Accreditation Received _____
   Have applied for Accreditation _____
   Have not applied for Accreditation but intend to _____
   Have not applied for Accreditation and have no intention to do so _____

5. I would be interested in receiving feedback on your results.

   Name _____

   Address _____

   _____

   Phone _____

BEST COPY AVAILABLE

Table 1

Summary Statistics for the Numbers of

Applications, Acceptances and New Enrollments,

1975-1982 for the Random Sample

Variables	Years:	1975	1976	1977	1978	1979	1980	1981	1982
Applications	$\bar{x}$	73.92	77.83	75.89	74.07	69.93	71.68	64.72	59.64
	s	68.63	67.85	69.08	60.85	59.10	58.45	55.29	52.16
	n	24	24	27	29	30	31	32	39
Acceptances	$\bar{x}$	37.42	39.58	49.11	48.70	48.59	46.59	43.06	39.02
	s	28.80	25.91	52.55	38.28	39.66	37.27	34.42	30.89
	n	24	24	28	30	32	34	35	40
New Enrollments	$\bar{x}$	36.63	39.64	39.15	40.28	40.87	40.56	39.00	33.76
	s	27.92	26.61	36.21	29.02	30.59	31.05	29.35	25.02
	n	30	31	34	36	38	39	40	45

BEST COPY AVAILABLE

Table 2

Summary Statistics for Previous Credit Hours by Change and Status for the Random Sample

Change \ Status		No Intention	Intend to Apply	Accredited/ Applied	TOTALS
No chg.	$\bar{x}$	35.72	38.91	43.63	38.38
	s	4.44	8.58	11.49	8.07
	n	18	11	8	37
Increased Hours	$\bar{x}$	32.64	34.57	39.57	34.92
	s	2.84	3.80	17.33	7.92
	n	11	21	7	39
Totals	$\bar{x}$	34.55	36.06	41.73	36.61
	s	4.15	6.12	14.11	8.13
	n	29	32	15	76

BEST COPY AVAILABLE

Table 3

Summary Statistics for Current Credit Hours by Change and Status for the Random Sample

Change / Status		No Intention	Intend to Apply	Accredited/ Applied	TOTALS
No Chg	$\bar{x}$	35.72	38.91	43.63	38.38
	s	4.44	8.58	11.49	8.07
	n	18	11	8	37
Increased Hours	$\bar{x}$	38.67	42.64	44.11	41.84
	s	4.36	6.31	9.16	6.72
	n	12	22	9	43
Totals	$\bar{x}$	36.90	41.39	43.88	40.24
	s	4.57	7.24	9.99	7.53
	n	30	33	17	80

BEST COPY AVAILABLE

Table 4

Summary Statistics for FTE's by Change and Status for the Random Sample

Change \ Status		No Intention	Intend to Apply	Accredited/ Applied	TOTALS
No Change	$\bar{x}$	4.92	7.53	10.07	7.03
	s	2.08	4.27	5.30	4.22
	n	12	8	7	27
Increased Hours	$\bar{x}$	2.88	4.89	6.04	4.54
	s	1.67	2.52	2.58	2.55
	n	11	18	8	37
Totals	$\bar{x}$	3.94	5.70	7.92	5.59
	s	2.13	3.31	4.44	3.55
	n	23	26	15	64

BEST COPY AVAILABLE

Table 5

Summary Statistics for Applications

by Change and Status, 1975-1982:

Application Date Complete

Change	Status / Years		1975	1976	1977	1978	1979	1980	1981	1982
No Change	No Intention (n = 4)	$\bar{X}$	56.25	54.25	50.50	47.00	44.25	41.50	37.00	37.50
		s	50.56	50.42	40.87	39.72	36.38	33.95	38.31	39.87
	Intend To Apply (n = 5)	$\bar{X}$	77.40	71.80	81.00	92.20	76.20	82.20	85.80	92.20
		s	53.44	54.01	50.04	81.11	92.68	95.81	99.64	98.50
	Accredited/Applied (n = 4)	$\bar{X}$	204.25	202.25	169.50	160.50	148.25	143.00	137.75	134.00
		s	79.97	81.98	78.93	63.27	53.16	47.14	34.08	46.01
Increased Hours	No Intention (n = 2)	$\bar{X}$	25.50	23.50	22.00	24.50	23.50	21.50	22.50	21.50
		s	13.44	16.26	18.38	14.85	16.26	19.09	17.68	19.09
	Intend To Apply (n = 6)	$\bar{X}$	49.83	54.50	50.17	54.00	53.50	46.33	45.33	42.33
		s	13.20	13.08	14.96	22.04	23.96	21.92	21.40	15.17
	Accepted/Applied (n = 4)	$\bar{X}$	73.0	81.50	79.75	77.00	65.00	64.75	67.25	66.00
		s	39.61	30.32	31.94	35.19	22.23	23.53	19.09	20.22

BEST COPY AVAILABLE

Table 6

Repeated Measures Anaylsis of

Variance Summary Table

for Applications by Change, Status

and Years (1975-1982)

Source	SS	df	MS	F	P	Greenhouse-Geisser p
A (Change)	106168.70	1	106168.70	6.01	.02	-
B (Status)	190332.72	2	95166.36	5.39	.01	-
AB	40655.14	2	20327.57	1.15	.34	-
Subject within Gps. (error)	335599.22	19	17663.12	-	-	-
C (Years)	6975.41	7	966.49	2.76	.01	.09
AC	2171.98	7	310.28	0.86	.54	.41
BC	10388.78	14	742.06	2.05	.02	.13
ABC	8236.02	14	588.29	1.63	.08	.20
C x Subj within Gps. (error)	48072.44	133	361.45	-	-	-
TOTAL	748600.41	199	-	-	-	-

BEST COPY AVAILABLE

Table 7

Summary Statistics for

New Enrollments by Change

and Status, 1975-1982:

New Enrollment Data Complete

Change	Status / Years		1975	1976	1977	1978	1979	1980	1981	1982
No Change	No Intention	$\bar{x}$	24.50	24.25	25.75	23.75	23.50	21.25	21.50	18.75
	(n = 4)	s	27.53	27.56	24.25	24.45	21.33	19.31	19.89	21.00
	Intend To Apply	$\bar{x}$	42.00	46.50	34.00	37.67	39.17	43.50	42.50	40.17
	(n = 6)	s	30.62	27.42	18.19	15.95	29.96	34.98	28.40	28.65
	Accredited/Applied	$\bar{x}$	47.67	47.67	47.67	47.67	49.00	49.00	50.33	51.67
	(n = 3)	s	33.56	33.56	33.56	33.56	33.06	33.06	32.72	33.53
Increased Hours	No Intention	$\bar{x}$	29.00	34.33	38.67	41.67	52.33	56.33	54.67	41.67
	(n = 3)	s	35.68	43.89	31.01	35.47	45.01	52.63	56.75	34.12
	Intend To Apply	$\bar{x}$	42.78	45.33	38.78	41.78	37.22	34.22	34.56	33.22
	(n = 9)	s	30.48	27.47	26.43	30.36	25.97	24.35	23.77	22.78
	Accredited/Applied	$\bar{x}$	41.00	44.20	46.40	44.20	36.00	37.20	37.40	34.60
	(n = 5)	s	29.80	25.85	24.63	26.25	19.61	18.62	17.62	20.26

BEST COPY AVAILABLE

Table 8

Repeated Measures Analysis of

Variance Summary Table for

New Enrollments by Change, Status

and Years (1975-1982)

Source	SS	df	MS	F	P	Greenhouse-Geisser p
A (Change)	547.32	1	547.32	0.10	.76	-
B (Status)	3629.68	2	1814.84	0.32	.73	-
AB	7001.11	2	3500.55	0.63	.54	-
Subject within Gps. (error)	134192.06	24	5591.34	-	-	-
C (Years)	315.05	7	45.01	0.41	.89	.69
AC	304.12	7	43.45	0.40	.90	.70
BC	1701.33	14	121.52	1.11	.35	.36
ABC	2306.44	14	164.75	1.51	.11	.21
C x Subj within Gps. (error)	18326.41	168	109.09	-	-	-
TOTAL	168323.52	239	-	-	-	-

BEST COPY AVAILABLE

Table 9

Partial Correlations for Applications with Change and Status with FTE's and 1975 Applications as Control Variables (1976-1982)

Variables Correlated	Control Variables	Years	1976	1977	1978	1979	1980	1981	1982
Applications with Change	none	r	-.39	-.41	-.39	-.37	-.41	-.36	-.39
	(df = 19)	p	.04	.03	.04	.05	.03	.05	.04
	FTE	r	-.10	-.13	-.10	-.07	-.16	-.09	-.14
	(df = 18)	p	.33	.30	.34	.39	.26	.35	.28
	1975 App.	r	.37	.03	.01	.00	-.11	-.04	-.11
	(df = 18)	p	.05	.46	.48	.49	.32	.42	.32
	FTE & 1975 App.	r	.40	.08	.06	.07	-.06	.00	-.06
	(df = 17)	p	.04	.38	.40	.39	.40	.49	.41
Application/ Status	None	r	.60	.55	.44	.39	.39	.40	.37
	(df = 19)	p	.00	.00	.02	.04	.04	.04	.05
	FTE	r	.59	.51	.34	.26	.25	.27	.23
	(df = 18)	p	.00	.01	.07	.13	.14	.12	.16
	1975 App.	r	.25	-.01	-.20	-.22	-.15	-.09	-.12
	(df = 18)	p	.14	.48	.20	.18	.26	.36	.31
	FTE & 1975 App.	r	.28	.04	-.15	-.16	-.11	-.03	-.06
	(df = 17)	p	.12	.44	.27	.25	.33	.45	.41

BEST COPY AVAILABLE

Table 10

Partial Correlations for New Enrollments with Change and Status with FTE's and 1975 New Enrollments as Control Variables (1976-1982)

Variables Correlated	Control Variables	Years	1976	1977	1978	1979	1980	1981	1982
New Enrollments with Change	None	r	.14	.16	.15	.08	-.01	.01	.00
	(df = 24)	p	.25	.22	.24	.35	.49	.48	.50
	FTE	r	.32	.42	.37	.27	.15	.14	.24
	(df = 23)	p	.06	.02	.03	.09	.24	.25	.13
	1975 New Enrollments	r	-.05	.02	.02	-.06	-.17	-.17	-.21
	(df = 23)	p	.40	.46	.47	.38	.21	.20	.15
	FTE & 1975 New Enrollments	r	-.20	.12	.00	-.01	-.16	-.26	-.11
	(df = 22)	p	.18	.29	.50	.48	.22	.11	.30
New Enrollments with Status	NONE	r	.10	.21	.12	.04	.03	.06	.13
	(df = 24)	p	.31	.15	.29	.42	.44	.39	.26
	FTE	r	.00	.09	-.01	-.08	-.07	-.03	-.01
	(df = 23)	p	.49	.33	.49	.35	.36	.45	.48
	1975 New Enrollments	r	-.11	.20	-.06	-.10	-.10	-.09	.02
	(df = 23)	p	.30	.17	.38	.31	.32	.34	.46
	FTE & New Enrollments	r	-.06	.17	-.07	-.13	-.12	-.07	-.04
	(df = 22)	p	.39	.22	.36	.27	.29	.37	.42

BEST COPY AVAILABLE

Table 11

Annual Percentage Change in New Enrollments for Programs Returning Complete New Enrollment Data and for Graduate Schools of Education 1976-1982

Categories / Years	1976	1977	1978	1979	1980	1981	1982
Counseling Programs	+6.9	-8.3	+3.4	-3.2	+0.7	-0.2	-7.5
Graduate Schools of Education	-5.4	-2.6	-4.2	-5.0	-2.8	-7.0	-5.1

BEST COPY AVAILABLE

Table 12

Summary Statistics for Percentages of Accepted Applicants Who Actually Enrolled by Change and Status, 1975-1982: Percentage Enrolled Data Complete

Change	Status	Years	1975	1976	1977	1978	1979	1980	1981	1982
NO CHANGE	No Intention	$\bar{x}$	83.4	79.7	81.1	81.1	84.2	74.1	72.7	82.6
	(n = 4)	s	16.8	11.5	9.2	9.7	15.0	4.4	22.3	20.5
	Intend to Apply	$\bar{x}$	92.2	87.8	75.5	77.4	86.0	80.5	79.5	73.3
	(n = 5)	s	8.1	8.9	25.5	26.7	12.4	16.2	16.4	22.9
	Accredited/Appl	$\bar{x}$	88.3	88.3	88.3	88.3	88.3	88.3	91.5	88.3
	(n = 3)	s	10.4	10.4	10.4	10.4	10.4	10.4	15.8	10.4
Increased Hours	No Intention	$\bar{x}$	87.5	83.3	94.4	85.7	83.3	87.5	76.9	87.5
	(n = 2)	s	17.7	23.6	7.9	20.2	23.6	17.7	2.7	17.7
	Intend to Apply	$\bar{x}$	80.0	84.6	92.2	77.4	79.6	80.7	79.7	75.9
	(n = 5)	s	27.2	17.2	11.3	19.5	17.6	25.0	28.7	21.5
	Accredited/Appl	$\bar{x}$	77.3	82.7	82.0	81.9	85.7	83.2	85.4	80.6
	(n = 4)	s	22.0	10.6	9.2	4.7	3.2	10.8	4.4	11.5

BEST COPY AVAILABLE

Table 13

Z tests Between Statistics from

Programs Returning Complete Data 1975-1982

and from the Random Sample

Variables	Returned Complete Data for	
	Applications	New Enrollments
Dependent Variable	.65[1]	.42[1]
Previous Credit Hrs.	.95	-.33
Current Credit Hrs.	2.71[2]	1.40
FTE's	2.55[2]	1.40

[1] Largest absolute value of Z for any year.

[2] $Z_{.95} = \pm 1.96$

BEST COPY AVAILABLE

Table 14

Analysis of Variance Summary Table

for Current Credit Hours by

Change and Status

Source	SS	df	MS	F	P
A (Change)	136.38	1	136.38	2.72	.10
B (Status)	502.59	2	251.30	5.01	.01
A x B	28.93	2	14.46	0.29	.75
Residual	3713.04	74	50.18	-	-
TOTAL	4482.49	79	-	-	-

BEST COPY AVAILABLE

Table 15

Repeated Measures Analysis of

Variance Summary Table for

Percentages of Accepted Applicants

Who Actually Enrolled by Change,

Status and Years (1975-1982)

Source	SS	df	MS	F	p	Greenhouse-Geisser p
A (Change)	.02	1	.02	0.00	.97	-
B (Status)	5.65	2	2.82	0.20	.82	-
AB	9.13	2	4.57	0.32	.73	-
Subject within Gps (error)	242.34	17	14.26	-	-	-
C (years)	4.57	7	0.65	0.53	.81	.70
AC	6.49	7	0.93	0.76	.62	.55
BC	12.58	14	0.90	0.74	.73	.65
ABC	6.12	14	0.44	0.36	.98	.93
C x Subjects within Gps. (error)	144.86	119	1.22	-	-	-
TOTAL	431.76	183	-	-	-	-

BEST COPY AVAILABLE

Table 16

Analysis of Variance Summary Table

for Current Credit Hours by

Change and Status

Source	SS	df	MS	F	P
A (Change)	136.38	1	136.38	2.72	.10
B (Status)	502.59	2	251.30	5.01	.01
A x B	28.93	2	14.46	0.29	.75
Residual	3713.04	74	50.18	-	-
TOTAL	4482.49	79	-	-	-

BEST COPY AVAILABLE

Table 17

Analysis of Variance Summary Table

for FTE's by Change and Status

Source	SS	df	MS	F	p
A (Change)	11379.38	1	11379.38	12.53	.00
B (Status)	16179.11	2	8089.55	8.91	.00
AB	908.49	2	454.24	0.50	.61
Residual	52663.27	58	907.99	-	-
TOTAL	79388.49	63	-	-	-

BEST COPY AVAILABLE

Table 18

Summary Statistics for the Percentages of Accepted Applicants and Percentages of Accepted Applicants who Enrolled, 1975 - 1982 for the Random Sample.

Variables	Years	1975	1976	1977	1978	1979	1980	1981	1982
% Accepted	$\bar{x}$	65.0	67.6	66.5	71.3	71.2	71.1	72.4	70.2
	s	26.8	26.4	26.2	24.7	23.2	25.8	24.7	24.2
	n	23	23	26	28	29	30	31	36
% Enrolled	$\bar{x}$	85.2	85.2	86.2	84.2	86.0	85.3	87.8	86.2
	s	17.8	12.3	15.0	16.0	13.4	15.0	15.9	16.9
	n	23	23	26	28	29	30	31	35

BEST COPY AVAILABLE

Table 19

Repeated Measures Analysis of

Variance Summary Table for

Percentages of Applicants Accepted

by Change, Status and Years (1975-1982)

Source	SS	df	MS	F	p	Greenhouse-Geisser p
A (Change)	216.94	1	216.94	8.70	.01	-
B (Status)	239.91	2	119.96	4.81	.02	-
AB	61.14	2	30.57	1.23	.32	-
Subject within Gps. (error)	448.65	18	24.93	-	-	-
C (Years)	10.69	7	1.53	1.74	.11	.16
AC	5.11	7	0.73	0.83	.56	.50
BC	13.19	14	0.94	1.07	.39	.39
ABC	6.10	14	0.44	0.50	.93	.84
C x Subj with Gps. (error)	110.86	126	0.88	-	-	-
TOTAL	1112.59	191	-	-	-	-

BEST COPY AVAILABLE

Table 20

Summary Statistics for Percentages of Applicants Accepted by Change and States, 1975 - 1982: Percentage Accepted - Data Complete

Change	States / Years		1975	1976	1977	1978	1979	1980	1981	1982
NO CHANGE	No Intention	$\bar{x}$	59.6	70.0	67.0	68.7	70.9	74.8	80.9	69.8
	(n = 4)	s	28.1	32.0	26.0	23.0	19.6	23.2	15.5	13.2
	Intend to Apply	$\bar{x}$	63.5	72.4	62.4	71.3	72.0	71.2	76.9	71.5
	(n = 5)	s	28.3	17.9	26.2	28.7	22.8	18.8	26.1	24.3
	Accredited/Applied	$\bar{x}$	29.8	28.4	33.8	35.9	36.6	38.6	37.6	33.4
	(n = 4)	s	13.1	11.8	17.0	19.0	17.3	21.0	18.5	19.6
INCREASED HOURS	No Intention	$\bar{x}$	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7
	(n = 2)	s	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
	Intend to Apply	$\bar{x}$	83.8	82.0	70.4	84.4	85.3	87.0	88.4	86.1
	(n = 5)	s	10.1	11.1	25.1	13.0	14.3	14.6	9.9	14.2
	Accredited/Applied	$\bar{x}$	70.4	72.4	80.0	77.0	68.2	74.1	71.3	65.7
	(n = 4)	s	20.0	17.7	4.0	11.2	22.1	6.2	12.4	23.7

BEST COPY AVAILABLE